New Haven Oct 8. 1850.

[illegible]

[illegible]

remember that a year ago I wrote you
sending you specimens of Lygodium &c.
In your reply you said that
if I ever found another specimen of
Onoclea obtusiloba, you wished
to be remembered. Last autumn
in Brattleboro Vermont I found a specimen
of Onoclea sensibilis in fruit with one
of the sterile leaves so transformed as
to much resemble Dr Torrey's figure in
his N.Y. State Nat. Hist. But the frond is
entirely sterile and is thus unlike either
Dr Torrey's plate or my New Haven specimen.
If you would like it I will take
much pleasure in sending it to you.

I have also from the same place a few specimens of Polystichum acrostichoides, serrate, and with the fruit continuing down to the tips of the lowest pinnae

I have received from California and Oregon several ferns, whose names I give as far as I can tell.

Gymnogramma triangularis. Kaulfuss.
Polypodium vulgare - 5 varieties, or perhaps one or two other species, among them is the P. Californicum of Kaulfuss.
Adiantum Capillus-Veneris -
Polystichum munitum
the Aspidium munitum of Kaulfuss.
Dryopteris argutum
the D. argutum of Kaulf.
Pteris lanuginosa of Bory. probably only a var. of P. aquilina
Allosorus andromedaefolius of Kaulf.
Another Pteris or Allosorus not described in Sprengel, which I have sent to my friends as P. mucronata.
Dryopteris intermedia ?
Blechnum boreale
Cystopteris fragilis.

If among these there are any that you would like I shall be most happy to send them to you -

Of Blechnum boreale I have no extra specimens, but have of all the others.

I am quite desirous of forming as complete as possible a collection of the ferns of the United States, and indeed of ferns generally; I have now all the ferns described in your "manual" of 1848 with the exception of

Polypodium incanum.
Woodwardia Virginica,
Asplenium Nidus,
Polystichum lonchitis,
Botrychium simplex,
Polystichum acrostichoides var. incisum,
and the varieties of Polyp. Dryopteris.
and Osmunda cinnamomea & O. claytoniana

Hoping soon to hear from you

I am most respectfully,
Your obdt. svt.
Daniel C. Eaton,

New Haven Nov. 2. 1855.

Prof. Asa Gray,

Dear Sir,

Your kind note of Oct 17, with its contents were duly received: please accept my sincere thanks for them. I have delayed my reply in order to dry a few I found since I wrote, and also to receive the 5th. 6th & 7th Nos. of a new folio published by Bradbury & Evans. London, entitled; "The Ferns of Great Britain & Ireland, by Thomas Moore, edited by Prof. Lindley, and Nature-printed by Henry Bradbury" The plates are printed in colors. life size. I send herewith several ferns, which if you will name for me I shall be exceedingly obliged.

Nos 1. 2. & 3. I suppose are varieties of Polypodium vulgare 1 & 2 from rocks - Benicia - Cal -

3. from Maple trees Fort Orford - S.W. Oregon.

4. I have another which I do not send - it is

very thick & coriaceous - pinnae obtuse, veins many of them anastomose, grows in Oregon on Fir trees, 100–150 feet from the ground. I send a little penciled outline of one of my specimens.

I suppose it is the P. Californicum of Kaulfuss, and the P. intermedium of Hooker & Arnott. What do you consider it to be? I have but three specimens, but if you would like one I will send it to you

5. is my n. sp.? of Woodsia Allosorus. Has it been found already?

6. is from the Dalles of Columbia river. I can make nothing out of it.

7. from Brattleboro Vt. C.C. Frost legit 1855
I can not make this agree with anything. It is too coarse for D. intermedia, & is in outline like D. spinulosa as figured in my new book cited above, but the indusium is that of D. intermedia.

8. From New Haven. Oct. 1855. I suppose I must call this D. Cristata, but it is very different from all my other specimens. It is more like D. Filix mas.

9. Aspidium aculeatum of Kaulfuss. What is it called at present?

10. From Oregon. I suppose it is a Lycopodium but do not know the species.

Last spring I had the good fortune to see Dr Torrey; he spoke of some new work in splendid style on the American ferns, but after diligent enquiry I can find out nothing about it. Can you tell me what it is, & how it may be obtained?

I see in the last Edition of Hooker Pestrica (1853). page 401 a notice of a Lycopodium like the one I sent you a year ago.

Very truly yours,
Daniel C. Eaton.

I omitted to speak of the Woodsia, but that will speak for itself. I gathered it in last August at Brattleboro Vt.

My New Haven specimen is smaller & has obsolete fruit. on the obtusilobate & somewhat revolute leaf.
Please retain the present specimen.

New Haven Jan 4. 1856

Professor Gray.

Dear Sir.

Your favor of Nov. 12 was duly received: I have delayed writing till I could get Hooker's "Synopsis filicum" and his "Century of ferns." Lindley's ferns I now have to Part 8. giving the genera Polypodium, Allosorus, Polystichum & part of Lastraea. I will be happy to send you the work by Express wheneever it may be desired.

Lindely unites Polypodium intermedium with P. vulgare, & Aspidium aculeatum with his Lastraea rigida.

I am sorry you intend uniting Polystichum & Dryopteris.

I send with this note a few ferns that may

interest you.

12. is Aspidium munitum - Kaulfuss.

13. " Gymnogramma triangularis. Kaulfuss

14. " Adiantum Capillus-Veneris ?-

15 " Allosorus andromedaefolius - Kunze, &
you will perceive is quite another
thing from No 5. my A. mucronata.

12. is from S. Western Oregon

13. 14. 15. from Benicia California.

On the enclosed piece of
the Oregon Lycopodium (No 10) you
will find a little fruit. it certainly
does not resemble the ordinary state
of L. inundatum.

If of any use to you please
do me the favor to retain any
ferns &c that I have sent you,
as I have other specimens.

Do you happen to have any
specimens that you do not want,
of Lycopodium alopecuroides, inundatum
or Carolinianum? I have never had
any of them — Very respy yours

Daniel C. Eaton

New Haven. Feb. 7. 1856.

Professor Gray,

Dear Sir,

Your favor of Jan 17 was duly received; the Lycopodia were very acceptable and I am much obliged for them.

In a former letter you said that A. fendleri argutum - A's was quite intermediate between Dryopteris & Polystichum. I have been examining the species I have of these two genera; I find no indusia on A. argutum that are not divided to the middle, and on specimens of Polystichum none that are divided. Besides the points of difference given on pages 630 & 632 of the manual, all of which I think are well made out, I find that the Polysticha are all of them more or less chaffy on the under side of the foliaceous part of the frond, even the smooth P. acrostichoides is somewhat so, while in the species of Dryopteris

Of the Woodwardias - I know too little to express any opinion.

You have asked me for 'any notes on ferns'. Perhaps the following may not be out of place -

spores highly inflammable as in Lycopodia

I believe this is my discovery.

Allosorus gracilis. I gathered last August at the locality for Scolopendrium, as also Asplenium angustifolium.

Woodsia glabella - was gathered at Willoughby lake in Northern Vermont in 1853 by Rev. C. C. Frost, of Brattleboro. Vermont. I have specimens from him.

Dryopteris rigida - New Haven. Conn. Oct. 1854

Compare this with the right hand figure on Plate XX. of Lindley's Ferns -

If our plant is identical with Lindley's Lastraea rigida, the Oregon & Californian A. argutum is not.

Dryopteris Goldiana - New Haven - Oct. 1855.

Onoclea - var. obtusilobata - { New Haven - Oct 1854. Brattleboro - Aug. 1855.

Imp. New Haven specimen is in fruit.

Please look again at my many branched Lycopodium.

Selaginella apus - Brattleboro Vermont. C. C. Frost -

I find nothing of the kind; the chaffy A. argutum has all its chaff limited to the sacks and the principal nerves, and is perfectly smooth under the leaf-like part. You will notice that in Lindley's ferns the Aspidia are separated into Polystichum and Lastraea. The species of Aspidium are an unfortunate race of ferns. Every one has his own name for them, and among so many diverse opinions they remind me of the Wandering Jew.

As Lindley is rather at the head of botanists in England, and once his work is the most recent of the many articles on British ferns, might it not be well to sacrifice a little to uniformity, and divide, as he does, the Aspidia into Lastraea and Polystichum?

You have asked me to name such of the species of our ferns as I think would do well to be drawn for engraving in the new edition. I am very incompetent to make a good selection; but I think it might be well to select such species as are among the more beautiful of the exclusively American species, for those of our ferns that are common in Europe also have often been engraved. I would therefore recommend. Polypodium hexagonopterum. Michx. Pteris atropurpurea. Linnaeus. Asplenium angustifolium - Michx. Cystopteris bulbifera. Bernhardi. Woodsia obtusa. Torrey - Hooker in his "Synopsis Filicum" takes to himself the credit of this name. Dryopteris Goldiana - I think this one of the grandest of all our ferns. I have gathered it in the S.W. part of New Hampshire Aug. 1855, and last October I found it growing luxuriantly three miles west of this city.

Polystichum acrostichoides. Both. or perhaps P. munitum from Oregon -

Osmunda - I have no choice between Claytoniana & cinnamomea. Botrychium lunaroides Mich. - I have a beautiful sterile frond of your dissection from this place -

I send Lindleys ferns as far as I have received them -
What he says about Polypodium intermedium, and Aspidium argutum I do not believe.
I send with it a few sheets from my own herbarium -
Besides the commoner ferns I have gathered here - in addition to those above mentioned Polypodium - Phegopteris and Botrychium lunarioides.

I have been for fifteen months studying mosses - In a very few days I intend sending to Mr Sullivant a few that I have found which are not enumerated in the manual.
Some time in April, if you are then to be in Cambridge, I hope to be able to accept your kind invitation to look over your collection of ferns -
I have now none, (or very few)

ferns that I would like to study in books that I have not, & therefore must for the present ask you to send me any book on ferns, as you offered so kindly to do.

I am in correspondence on the subject of mosses with Mr. Sainy of Philadelphia & through him with Mr. Thos. P. James, who has now your copy of Bruch & Schimper - I am every day expecting a copy from Europe of the same valuable work.

With many thanks for your kindness
I am very truly yours.
Daniel C. Eaton.

New Haven - Jan 12. 1857.

Dear Dr. Gray.

I have received the genus-paper in good order, and your two notes about it. I thank you heartily for the trouble you have taken and the kindness you have shown in relation to it. I enclose a certificate of deposite in the City bank of New Haven for the money. I am in need of herbarium paper, and do not like to pay seven dollars a ream for that which is not the best for the purpose, as I have done. Would an order for 10 - 15 reams be worth the while of the paper makers? If

If you think it would be so. I would be much obliged to you if you would give Rice & Kendall an order for say 5 reams & a sheet of your own herb. paper as sample.

I was in N.Y. the other day & passed a very pleasant evening in Dr. Torrey's study.

I shall send you some plants in a day or two when I will write again.

Yours most truly.

Daniel C. Eaton.

New Haven Jan 16. 1857

Dear Dr. Gray.

I am very sorry that you had any trouble with that certificate. I enclose a bank note & some postage stamps as you desired, & hope they will reach you safely. I will take the 20 reams of paper, though it is about twice what I suppose I can use up in three years. I am much obliged to you for offering to join me in the order.

I enclose the label of a Boraginaceous (or Hydrophyllaceous) plant that you gave me last Spring. I can not decypher it. Can you?

I have an Onosma from Oregon has ovate-oblong rough amplexicaul, very rough, anthers minute filaments 1/3 lenght of corolla. Can you

say what it is likely to be - I can not find one like it in De Candolle.

Very truly yours.

Daniel C. Eaton.

New Haven, Conn
February 28. 1857

Dr Asa Gray
Cambridge
Mass.

My dear Sir.

I rec'd yours
of the 25th inst. this a.m.
The package of plants
in perfect condition arrived
yesterday — I now enclose
a check for $20 on a
New York city Bank for
the specimens — Enclosed
herewith are postage
stamps for 69 cents —
The note for Dennis
will remain for the

on his return, as you
suggest.

With very grateful
thanks to you, both
for your kindness to
me now

I am very
Truly thankfully
Your Friend
A. B. Eaton

Nov

If in my power at any
I can serve you in
any manner, please
allow me the pleasure.
of doing it —

New Haven, Oct 17. 1857
Saturday.

Dear Dr. Gray,

I yesterday returned from a cousin's wedding in New York, or I would have sooner thanked you for putting up some of the Cuban plants for me. I will take the set as it stands, and am very glad of it. I send Wright a check on the U.S. Sub-Treasury, which will be good in these times of suspensions.

I am soon going to get out a Catalogue of the New-Haven flora, & will extend the range of a few plants. E.g. Euphaea viscosissima, Jacq. With the Cuban plants please

send Swartz & Runge if
you can spare them, also
Sullivants portrait.

Dr. Torrey will speak to
Decaisne to secure some
Fern books for me if they are
in Jussieu's collection.

Faithfully & respectfully
Yours
Daniel C. Eaton.

New Haven. Oct 20. 1857.
Wednesday Morn.

Dear Dr. Gray,

The Cuban plants
ye have come and I am very
glad of them. There is an Aspidium
extending through our Southern
States from Florida to New Mexico
that I do not know the name
of, tho' I think it is A. patens. Sw.
Riddell sent it around as "A Rafin-
esquianum Kidd." & I see it in
Wright's Pl. Cub. No 822. & Wright's
New Mexican plants no. 2118. (1851-2)
Shall I call it A patens? It is
figured in Schkuhr. tab. 34. and
in Sloan. t. 52. f 1. and by Plumier
according to Pee. Hooker in Bot. Beechey
says he has it from San Francisco.
If you have "Cavan. prael." will
you do me the kindness to copy
the account of Pteris lutea, and

also a take a rough tracing of the figure if there is any.'

The enclosed Cheilanthes is from Whipples Exped. & also from Dr. Newberry's collection, who marks it; "Cascade hts. alt. 7000 ft. lat 44°."

I want to put it in a note in the Mex. bound. survey. as a n. sp. Ch. gracillima, unless Dr. Newberry publishes it. What shall I do.

I send a pinna of the Aspidium. I have tried in vain to get the second part of Plantae Wrightianae Tex. hor. Mex. from all the booksellers in three cities, N.y. Wash. & Phil. The Smithsonian has no more. Have you a copy to share?

Faithfully yours.
Daniel C. Eaton.

Thanks for the portrait. U.S. is a very fine looking man.

N. 6,

293, 294

297

1204

N. 5.

299, ~~1774~~

928

934

998 (15 frames — not found, Hort

999 " "

1000 (25 frames)

1014 (frames)

1024 5 frames.

1199 (50 frames)

1873 (50 frames

1875 (40 "

1878 20 "

1887 (4 frames

2379 ("

2429 (30 fr.

2650 (~~50~~ ~~40~~ fr.

2664 (~~15~~ fr)

New Haven. Dec 3. 1857

Dear Dr. Gray.

Please look over this catalogue and mail it to Westermann as soon as possible, for it is the only one he has, & he wants to circulate it. I shall bid for Nos.

1963. 1965, 2311, 2314, 2325, 2326, 2329, 2334. I will soon return your books. I now have of my own. Plumieri Filices Kunzii Farnkrauter with portrait. Schott. Genera Filicum Spring. Lycopodiaceae Linnaea. Vols 1–20. Siebold & Zucc. Flor. Jap. pts. 6. 7. & the Hydrangeas.

Also a heap of little brochures & notes &c, the collection of Dr G. W. F. Meyer. When you get

the plants of Rogers Expedition
I will send you a number
of things on Japanese botany
if you like, from this collection
N.B. I have two copies
of your Melanthaceae !!
Would you like one of them?
Also a duplicate of Blume
on "Nees ia, Genus pl. Jav." 4to 12 pp. t. 1.

Very truly yours
Daniel C. Eaton.

Would you like to see "Payer,
organogenie de la fleur"?

New Haven, May. 4. 1858

Dear Doctor,

I enclose the bond as you desired. I doubt if you will be soon called upon to pay the $. 200.

Lyman says that he will make dissecting microscopes at ten dollars, if he can be sure of selling a dozen of them as soon as made.

He will put the polish. This is the best he can do—

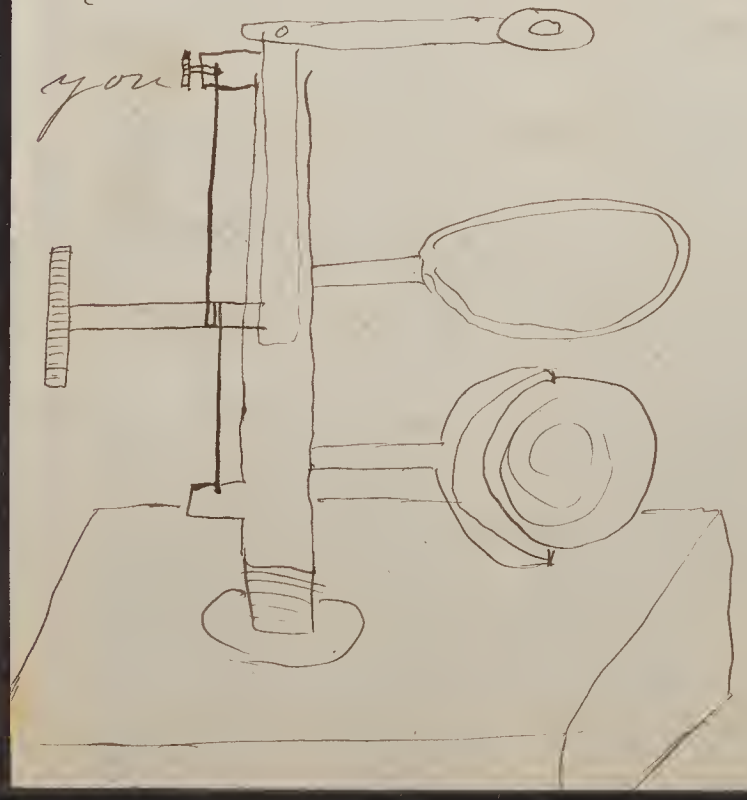
Will you engage for a dozen on these terms?

In haste

Ever truly yours.

Daniel C. Eaton.

microscopes in neat boxes, and they will be made as follows; they will have a perpendicular motion of the lens by means of catgut on an axis - as I described to you



The arm that carries the lens will revolve on a perpendicular axis, but will not be extensible The stage, of glass, will be fixed, but the glass will be easily turned round so as to bring any object on the stage under the lens. The mirror of course moveable. The lenses will be two. one about one inch or 1¼ in. focus, & the other one of higher power - He says he will make them good but not with any extra

a mind to try him.

I have two good specimens of Trillium nivale, from Ohio - Buckley. both glued down - Gibbs shall have them if he gets the flowers of Nuttall.

Tamplin offers me a good colored copy of Schkuhr's Farnk. with autogr. letter of the author for £. 6.10.0 - I have ordered it - Thanks for the hint to Westerman about Spicules Aiblet &c.

Yours ever D. C. Eaton.

New Haven May 12. 1858
Wednesday A.M.

Dear Doctor,

Isoetes Lacustris

there are four Lastreas.

L. setosa. vide Langsd. & Fisch. &c.

L. propinqua. J. Sm - broadly triangular, at the base 3-pinnate frond nearly smooth - the lowest inferior segment of each pinna decurrent & inflexed.

N. L - sp. ? narrower than the last. frond pubescent.

O. L. sp.? - The largest of all the Lastreas in the collection - frond delicate, sori very minute.

You will make it out from the above –

My Ms. notes read "Woodsia polystichoides." The other was a Lapsus calami.

See that from Hong Kong you have Trichomanes latemarginale.

Dr. Curtis writes me that his locality for Nuphar sagittifolia is Wilmington N. Car. He would write at once to his old friend, Dr. Mc. Ree, in whose domains there are creeks where he can get "cart loads of it."

Dr. Mc. Ree "is hard to move", but Dr. C. thinks he will do it.

Dr. C's son is a school-boy & has got well of his botanical fever.

I think it is a disgrace to the South that there are so few botanists there.

Do you know anything about "Prof. W. C. L. Richardson of Centenary Coll. Alabama". I have half

New Haven, June 1. '58

Dear Doctor,

I have just come from the Railway Station where I have seen Fanny off for Litchfield, where she expects to be for some months, at Mr. Rufus Smith's.

I have, now lectured twice to a class of about 40, (two thirds of them are young ladies) and have, I believe, given general satisfaction. I shall

He offered to look again at any of Wright's Cuban Ferns; so I sent him the numbers of a dozen of them, & will delay publishing the list till September. He says he will be glad to see the Ferns from the Chinese Seas.

I hope you are saving out for me some of the Lycopods of Rodger's Exch.

The Cycas leaf I am sorry to have left behind, Please save it for me to get at some future time

in a very few days commence practical classes in analyzing plants, and in teaching the structure of them by aid of the microscope.

These classes will be entirely independent of the lectures. I am getting a lot of books bound - from the proceeds, & expect soon to send for that set of Lindheimer's plants. After these things if the money holds out I am going to get up a Ward's Case.

You don't know how rich & independant I feel.

A letter from Hooker came the other day.

He says the juggling "Athyrium cystopteroides" is new to him, but calls it a Lastrea (Nephrodium)

About the Hong Kong Trichomanes; he calls my new one T. pumilum - but he will have to take it back when he sees both species together.

may be lacking in some other set. I have not Tough Pl. Col. Kotschy in Syria &c. nor have ~~I~~ I a paper on "Oxyera" (Oxyria?) - You gave me two copies of the text of Micgueles piperaceae.

Ever truly yours

Daniel C. Eaton.

I hope that the recently deceased E. G. Loring was not a near relative of Mrs. Gray. If I remember correctly he was not.

I am collecting very thoroughly this summer, & hope to go to the White Mts in August.

Sartwell takes two dozen of Blytts Carices, & promises to collect Ferns & Orchids. Trall Green promises to collect for me. A classmate in Cincinati will do something

So will Dr. Short, Frost, Geo. Cook & boys in New Jersey & and a Senior in Williams College.

But I have no one South nor North West.

The Sillimans expect Dr Torrey here next Saturday to stay over Sunday. I hope to see him in my study.

When shall we see Dr. Gray & Mrs. Gray at 49 Elm St?

I will see Emmons before I send off the letter,

Pamplin has a copy of Schkuhr's Filices for me - colored plates. £. s. d. 6. 10. 0 with ~~etc~~ autograph letter of Schkuhr.

My copy of Blume's Flora Javae has colored plates. but half the text of Loranthaceae is wanting.

The plates to Gray's Bot. U.S. Exhd. Exhed. I have had bound in half green Turkey Morocco - for $ 5.00.

There is a duplicate of Plate 76. (Haplopetalon Richii) I will save it for you as it

New Haven. March 17. 1859.

Thursday.

Dear Doctor,

The package was duly received; thank you.

I will take 25 reams of Herbarium paper and 2 reams of Genus covers.

This will give me 5 reams of the one, & half a ream of the other for Schuyler—(a Senior here from Ithaca.)

My cases (72 pigeon holes) are nearly full, & I am having a new set made of 72 more.

I am sorry to hear no better accounts of Mrs. Gray's health, nor of yours either. We have two half invalid young ladies in this house, & I do a large business in carrying them up stairs. (Fanny & a cousin)

The Marattia is somewhere in the extreme northern rank of pigeon holes. Don't look it up - some time I will find it. Perhaps Chickering would like to have some Barbarian paper. He asked me about it last summer.

His address is;

J. W. Chickering,
Bangor Theol. Seminary
Bangor
Maine.

I will send the Fern Catalogues presently.

Ever truly yours
Daniel C Eaton.

Penn Yan N.Y. Jan. 25th 1860

Mr Eaton

Dr Sir I rec'd your letter of Dec. 5 a long time ago. — You sent a list also of plants you had collected, none of which do I want but Carex rigida. —

You mention that you have some duplicates from the North of Europe — I do not wish any foreign plants but Carices and Grasses & I had quite a number of duplicates from France, the Alps &c.. I sold them — If I increase my herbarium I wish to do so with American plants — You sent me a few little plants in your letter. they are. No. 1 Carex trichs. — 2 Carex stramina — 3 C. Scoparia young. — 4 C. Scirpoides — 5 Micrupis Leptocioides. ——

As long ago as Dec. 17th I sent a package of plants to Dr Gray, but have had no notice of the rec't of them. I hope they went safely

The contents of the package were

as follows — Flowering Plants 310
Ferns — 27
Gramineæ 64
Cyperaceæ (& Carex) 35
Cariceæ 121.
557

Dr Gray sent me a notice of Wrights collection of Cuban plants, among which I note quite a collection of Ferns, a set of which I should be very glad to receive if any opening offers. — You mention in your letter that you wanted plants for Muller. Hanny. Godet &c. but I am little to offer in exchange except Australian plants &c. which I do not want. — I observe that the fullest sets of Wrights Ferns contain 180 species. & as to paying money for them I am not able to do it. — I can exchange plants such as I have. — I am cordially

Yours H. P. Sartwell

N. H. Jan. 28. 1860.

Dear Doctor

This letter seems to be about as much intended for you as for me.

I have seen part of your review of Darwin.

I have received Hookers Fl. Fiticum part IX. on Louisiana & Blechnum.

Ever truly yours.

Daniel C Eaton.

New York. Feb. 3. 1864.

Dear Dr. Gray—

I have been too negligent about writing to you, and am sorry.

I had nothing to send to Mr. Wright, and was very much engaged at the office the day Mr. Kennedy sailed— I have done very little botany in a long time, and feel almost like an outsider.

But now there is the most cheering prospect of a change for me in this

respect, as you can see by reading the enclosed copy of a letter recently received from President Woolsey.

I do not know how soon I shall be able to go to Europe - Not until I can leave my good Father. A younger officer, Col. Clarke is here now, learning the trade; and when he has learned it he is to relieve Col. Eaton, and then I can probably go - first to Kew & then to Germany -

I want to go to Cambridge & talk with you some of these days, but fear that Mrs. Grays feebleness would make me an unwelcome visitor.

The Torreys are all pretty well - & are much engaged with some Tableaux vivants which they have undertaken.

Ever truly yours,

Daniel C. Eaton

New Haven.
Jan. 15. 1866.

Dear Dr Gray.

I am to be married the 13th of February. We expect to sail for Havre in the Fulton, the 17th of February, & to be gone six or seven months.

We are to have a great wedding reception from 1 - 3 P.M. Tuesday Feb. 13th at No. 34 West 26th St. N.Y. - and would be very much pleased

of Lake Superior, both collected by Robbins.

Aspid. Filix-mas. Lw. perfectly normal

and

Woodsia Oregana. Eaton

I had the specimens, but returned them to Dr. Robbins, who has forgotten to thank me for my pains!

Ever truly yours.

D. C. Eaton.

if it should suit your & Mrs Gray's convenience to be present.

Under these circumstances, (unexpected till this year) I had better not print anything on my Pteridologia until I return. Can you tell me where in Sill. Journal is your article on European Herbaria.

I want to examine Chamisso's, Michaux's Linnæus' & perhaps Swartz's herbaria - so as to be satisfied what were the types of their American species of Ferns.

As we expect to "do" Western Europe pretty thoroughly - I shall be able to get almost any seat of botanical fame - & will be very thankful for any hints, directions. letters &c. &c. you will give me.

Please add to the manual two ferns from the Southern States.

The last thing I can think of for you — You may think to a desperate remedy — but I should delight to hear of it — would be — that you had fallen seriously in love with some sensible and excellent young lady and had won her. That would bring you up to the

Dear Dr.

Her name is Miss Caroline Ketcham, and I did not know before that such a "sensible and excellent young lady" was in existence.

She is a younger sister

of Mrs D.C. Gilman, of New-Haven, is only 21. has brown hair & blue eyes, and is altogether above & beyond any complimentary phrase I can devise.

Rejoice with me.

Tell Mrs Gray —

Ever yours sincerely
Daniel C. Eaton.

Prof. A. Gray.

New Haven. Conn.
Dec. 8, 1869

Dear Doctor.

I go today to N. Y. & on the 10th Dec Volente, to visit my good Father in Washington - to return in time for Christmas -

I take to Dr. Torrey the needed Polemoniaceæ, as he has those of 1867. & '68 already - & Watson will presently send you the Eriogoneæ.

To gratify your botanical curiosity I

enclose print of Ranunculus Andersonii.

It will be some considerable time before these Watson Plants will be distributed, but when they are you shall of course have a good set of them.

Ever truly yours

D. C. Eaton.

New Haven. March. 1. 1870

Dear Doctor.

I enclose an Aster, from Watson's collection, of which I can make nothing - It has the long herbaceous involucral scales of A. Douglasii, only more so - & the dwarf habit of the glacialis set. Have you ever seen it before? If not will you give it a name?

I have another - about the same size, but of a very different character, which I think is also new - It resembles the very small forms of A. Andersonii,

but has smooth achenia! &
a slightly different involucre.

If it is not too much
trouble will you send me
a box-full of such of Bowers's
plants as you have already
taken out of for Herb. Gray?
I particularly want the
rest of his composite.

I suppose Watson is
still with you, & having
a very good time. When
is he coming home?

Ever truly yours.

D. C. Eaton

Dr. Gray.

New Haven.
Sept. 18. 1871

Dear Dr. Gray.

I have received Gliesbrecht's ferns, have opened the cases & looked them over, & have just drawn a check to pay for them - I paid

for 1500 ferns at 8c. gold 120.
add 14 p.c. premium 16.80
$14/3 freight to N.Y. 4.67
75c. cartage .75

Total $142.22

The specimens are very good, are mainly duplicates of what I had from him 5 years ago, and are all or nearly all numbered. Will you print tickets for the whole collection of Phoeng's & Cryptog's? so that when we make sets of them the tickets may be all alike?

I go tonight to join Farlow at Cape Ann, & will try hard to look in on you before my return - probably on Saturday -

Ever truly yours

Daniel C. Eaton.

692. Woodsia scopulina. D.C.Eaton.
694. Selaginella rupestris, Spring
var. tropica. Spring
695. Equisetum brevifatum, Braun.
696. E. —— limosum, L.

New Haven. April 25. '72

Dear Dr. Gray,

I send notes on the Ferns of Hall's collection.

I have had the queer Athyrium before, from Brewer & from Watson, & am inclined to look it onto A. filix-femina -

Please let me know what I am to pay for the set. $10. per 100 - or more, or less. I have looked over only a part, but think Wright has distributed with a very generous hand —

Mrs. Hoxpin was

here this evening, & she asked more questions about you than I could answer—

Ever Truly yours
Daniel C. Eaton.

Dr. Gray.

Notes on Halls Oregon Ferns
april 25. 1872 D.C. Eaton

673. Pol. vulgare, var. occidentale, Hook.
674. Pol. Scouleri, Hook. + Grev.
675. Gymnogramme triangularis, Kaulf.
676. Adiantum pedatum, L.
677. Ad. chilense, Kaulf.
Obs. Baker puts this into A. AEthiopicum, but I am not yet prepared to follow him in so doing.
678. Pteris aquilina, L. var. lanuginosa, Hook.
679. Cryptogramme acrostichoides, R. Br.
680. Lomaria Spicant, Desv.
681. Asplenium Trichomanes, L.
682. Aspl. (Athyrium) Filix-foemina, Bernh. fully developed, with the pinnules deeply pinnatifid.
683. Aspl. (Athyrium) Filix-foemina, Bernh. var. Michauxii, Mettenius — (See Watson's report, p. 396.
I take this for a tall form of the old Aspid-angustum, Willd.
684. Phegopteris Dryopteris, Fée.
685 } Aspidium spinulosum, var. dilatatum Auct.
686 }
687. Aspid. Filix-mas, Sw.
688. Aspid. munitum, Kaulf.
689. Aspid. munitum, Kaulf. with shorter & obtuse pinnæ.
690. & 691. Cystopteris fragilis, Bernh.

New Haven Sept 6, 1874.

Dear Dr. Gray.

Your larger Woodsia seems to me pretty plainly W. obtusa, with fringed involucres, though I have not seen such before. The broad segments of the involucre are reflexed (inflexed) over the sporangia, as they are not in scopulina. & the plant is larger than any of my scopulina. Bolanders 6242 is good scopulina, & I send one lately come from Brandegee -

Your smaller Woodsia looks most like Wright's 2120, & I don't know what it is.

I have Wright's 2120, but not
830, nor Tendlers 1021.

I have never had your
Woodsias - & believe I came
honestly by my 2120.

W. Oregana you ought to
have as Watson's 1369
Eaton (Utah) 368
Kew Distrib. 207.

& Parry got fine specimens
June 22. 1873 at the head of
the Sweetwater Riv - Yellowstone.
I have never had any trouble
in distinguishing between
the two when I have had
decent specimens. Poor ones,
like other rubbish, may be
almost anything.

I had a pleasant time
with Farlow at Roanoke.

Anderson inundates me
with fine algæ. He has
sent three dozen fine specimens
of Dasya plumosa, described
by Harvey from one bit so
poor that I should have
put it into the waste basket!

Ever truly yours.

Daniel C. Eaton.

New Haven.
Sept. 29. 1874.

Dear Dr. Gray,

I have not had a chance to look again at your Minnesota Woodsia till this morning, & now I have spent two hours over it. I have got a pretty good indusium dissected off & under the microscope, & ditto with W. obtusa – and I am about ready to concede that you have W. scopulina, but looking somewhat different

from most of my specimens.

I have never had any so large as this.

Of Robbins Keweenaw Woodia I have only a poor over-ripe example, & with considerable difficulty I have got at the indusium, & find it just as I described in my old tract on Woodsia - "almost none at all, divided almost to the centre into a few moniliform very short cilia". & so I think it right to still call it W. Oregana -

I will send you all my material of these species if you would like to see what there is. My course very hampered with material is often very bewildering & unsatisfactory, but good specimens are I think sufficiently obtainable.

I have never had the Cotton-bases of Isoetes heads of Robbins coll. in California & Oregon - I have all the heads of the Lichens, Fungi, Algae, & the fronds of the grasses - Should like the Isoetes very exceedingly, & would be glad to buy the whole rather than pieces of any.

Yours truly

Daniel C. Eaton.

New Haven. Nov. 3. 1874.

Dear Dr. Gray.

Very abundant thanks for the Glazion Ferns, & the Pacif. Ex. Ex. botany - which came today.

Baker, in Proceed. Linnean Society, some months ago, gave his synonymes to Fée's names of Brazil Ferns.

Well - Kleeberger guesses 719 was "light-blue, because light-blue fades to such a color". I could hardly risk a guess, unless it should be light-purple passing into a yellowish center. (centre)

I would not believe the original color was either red or deep yellow.

Ever truly yours.

Daniel C. Eaton.

SHEFFIELD SCIENTIFIC SCHOOL OF YALE COLLEGE,
New Haven, Connecticut. Feb. 26, 1875.

Dear Dr. Gray.

I have sold the two remaining sets of Ghisbreght's plants. viz - Sets 9 & 10 of the Phenogams. of 71 and 62 species respectively, to Mr. Bennett of Providence & to Dr. Rothrock. I enclose a check for $ 13.70 to pay for them. This completes the business I suppose. If I am wrong please advise me.

I have been much troubled with rheumatism

this winter, but am now
pretty well again

Our good neighbor and
friend, Mrs Hoppin, came
home a week ago, leaving
Benjamin well in Europe.
I suppose you may have
heard of her adventures,
but lest you have not I
will say, that she was
on the Deutchland, which
broke off all the flukes of
her propellor some 200 miles
S.E. of Newfoundland, & had
to put back under sail in
a fearful gale. The sails
were torn to shreds, & the
ship was at one time turned
side to the waves. The propellor
broke Jan. 18; on the 21st or 22d
they signalled the Braunschweig,
but lost it again until four
days later, when it took
them in tow & brought them
into port at Southampton.
Four days later Mrs Hoppin
sailed again in the Necker,
& came home safely.

Ever truly yours

Daniel C. Eaton.

E Spinis Flos—

Of course I am delighted with it—generally & and particularly—generically specifically & ordinarily, too I mightas well say.

I have been reading over the Compositae, almost as one would read an interesting story, and my chief thought about it is "How the Doctor loves his subject." It is no

"dry science". but a
careful + tender revision
of the work of many
long years.

In good season may
we see

E Flore Fructus

Yours ever faithfully

S. L. Eaton

New Hamburg 15. 76

To Prof. Gray
Cambridge. Mass

Brewer is in Philadelphia.
Will keep the Gen. Plantarum
here for him. Please send
memorandum of cost. etc.

New Haven. March 17. '77

Dear Dr. Gray.

While I have tried not to neglect my various duties here for the last three weeks, I have not felt able to thank you for the very great kindness of your letter to me.

My Father's death was perfectly painless - so the Doctors tell me. He closed his own eyes - and was gone.

We had greatly enjoyed

to Mrs Gray, for her kind messages, and believe me

Faithfully yours

Harriet C. Ecton

Finding that I am writing, Carrie asks me to send her kindest regards to Dr. & Mrs. Gray.

E

his four months' stay in New Haven, and I am very happy to think that probably all my little children will remember him as he sat one day in my library and played with them by turns on his knee.

To me he was not only a kind and revered parent, but, as I was an only son, he seemed of later years to fill for me also the place of an older brother.

We laid him away for his long rest near the graves of his mother and my mother, and I am thankful to the Lord for the mercy which has followed my Father all the days of his life, and for the kind providence which enabled me to personally lay his remains by my mother's side.

Please make my very kind acknowledgments

New Haven Oct. 27, 1871

Dear Dr. Gray.

Certainly:— I will gladly name Tendler's Trinidad Ferns. The more I see of Baker's work, the more I don't like it. With him there is too much of rejecting other people's work, and he does not habitually indicate the most distinctive characters.

I want two sets of Tendler's ferns— one for George Wall, of Ceylon, who has sent me a very fine set of Ceylon ferns.

Ever truly yours

D. C. Eaton.

New Haven. Sept 19. 79

My dear Dr. Gray.

I am very much pleased that you accept my dedication so kindly. I know there are faults in my part of the work, to say nothing of some of the plates, which I don't like at all. I wish Faxon had done them all. Please think of Faxon as perhaps a botanical artist who may yet do good work of some other kind. He is a very

of the man - & will ask him for the data.

Thanks also for your kind words about my family. We are all pretty well - but I am still troubled with a slight tendency to gash. I am taking the best medical advice I can get for it, but am now 45 years old, & ought to begin to look for some sign of physical decay - I suppose.

Ever faithfully yours

Daniel C. Eaton

pleasant gentleman, and I hope he may find some kind of botanical promotion one of these days - If you see him please try to encourage him.

Parts 20-21 are in type. & I hope will soon be issued - In a note to Woodwardia radicans I have said my say on prolification in ferns - for I found - what I ought to have known before - that proliferous growth from the base of the stalk of our Dicksonia is by no means an example of something hitherto unknown.

I have written to Tuckerman, & will write again soon - When his Bridal Ferns are all issued I mean to do up a nice little monograph on them - & to print parts of his letters as an introduction - I shall want also a condensed biography

New Haven.
March 16. 1880

My dear Watson.

Here is a little more copy for you. I fear you will have to cook it up a little.

Order CXXV - Marsiliaceæ -
with only M. vestita
and Pilularia Americana.
& CXXVI - Salviniæ
with only Azolla Caroliniana
will end my task -

But I fear you will have to wait till next Tuesday for it.

I wrote to Engelmann

Eaton

about the Californian
Insects a month or more
ago – but have no reply.
So I have copied what
he said about them in
1874.

My new Selaginella I have
had for 25 years – but
never fairly studied it
out till yesterday.
I had to put in
Lycopodiaceae – or people
would wonder why
it was left out.

Ever truly yours.

A. C. Eaton.

New Haven. July 7. 1880

My dear Dr. Gray.

I have your very kind letter of the 4th inst. I thank you for your kind invitation for August 24th, etc. but I regret to say that I shall not be able to accept it, as I do not expect to attend the meeting of the Association.

I hope, in going to New Hampshire, by or bye, or in coming back, I may be able to run in and say

Goodbye to you and Mrs Gray.

I am perfectly satisfied about the little fern, which I think is a good and distinct n.sp. & habitily named — Why should I claim any monopoly?

That you are disposed to commend my book pleases me much — I have certainly worked very hard over it.

Yes, you may send me Fendler's things, with list of subscribers, prices, &c., & I will do all I can for him.

Mrs Eaton will write to Mrs Gray this evening.

Can you notify the N.Y. agents to send the box direct to me?

I am going to Ulster Co. N.Y. tomorrow, for a few days in the wild woods — but my wife will be here to receive & care for boxes &c —

Ever faithfully yours.

D. C. Eaton.

New Haven Conn.
Aug. 27. 1880
1 P.M.

Dear Dr. Gray.

I have finished distributing Garber's plants.

Set #1 - 142 numbers I save for Baron Eggers.

2. 142 numbers - with 49 uniques. 191. in all. I send you for Kew.

3. 134. nos. I send for your herbarium

4. 115. nos. I keep here.

5. 107 nos. I send you for Kew.

The rest run thus.

Set	Nos
6	96
7	95
8	90
9	87
10	86
11	85
12	85
13	85
14	85
15	83
16	82
17	26
18	26
19	18
20	7

I have packed up the sets for you & for Kew in two bundles.

#2 for you contains your set, & set #5

#3 for Kew contains Set #2 & the uniques

#1 for you contains sets 1.3. 16.17.18.19 of Fendler's Items.

1 for you
3 for Kew.
16.17.18.19. for Kew to distribute as before — if you are willing to take them with you.

(Adams Ex. Co.)

The Expressman is to call for the bundles this P.M., and they ought to be delivered to you Saturday.

I hope your visit to Europe will be very pleasant and that you will see your way clear to complete the Flora of North America on your return.

Please give my very kind regards to Mrs. Gray, with all good wishes for her health and happiness.

I feel rather better for my two weeks vacation at Holderness—

Ever truly yours,
Daniel C. Eaton.

New Haven. Sept. 7. 1880

My dear Sir - I have almost ready a new "Systematic Fern-list" of the U.S. giving Orders, subordersTribes, species, range in America, & Geographical Distribution. Will send you some soon - Shall use it to exchange for specimens of ferns, or sell at a small price -

Yours very truly

D. C. Eaton.

POSTAL CARD.

NEW HAVEN SEP 8 CONN

U.S. POSTAGE ONE CENT

WRITE THE ADDRESS ON THIS SIDE - THE MESSAGE ON THE OTHER

SEP

George E. Davenport. Esq.
8 Hamilton Place
Boston.
Mass.

New Haven. Oct. 30, 1880

Dear Dr. Gray-

Will you please send notices of Tendler's second coll. of Trinidad ferns to the following parties; the sets correspond to the sets of 1st coll. taken by them.

Set.	No. of ferns.	Purchaser-	price
7	57	E. Boissier	$ 5.70
9	56	M. Barbey (Boissier's son-in-law)	5.60
20.	45.	Dr. J. Muller, for Herb. Delessert.	4.50
21.	45.	Dr. J. Muller for Mr Gehut(?)	4.50
28.	38.	Royal Herb. Munich-	3.80
30	38	Dr. Cosson, Paris &c.	3.80

Ask them to write to me & say whether they want them, & whether to be sent by Smithsonian, or how.

I enclose copy of names. & mail them separately to you- and to the addresses of the above.

I have sent Tendler a draft for £ 19. costing $ 94. rather

more than I have yet received on his account.

I have written to Mitten to ask if he will distribute & name the mosses. If he says "no" what shall we do? Try Müller?

We are all here waiting for the Presidential election with feverish anxiety.

Hoping that you and Mrs Gray are well, and enjoying your visit - I remain

Yours faithfully.

S. C. Eaton.

P.S. names of Gathers plants, with correction for Pilea recid, copied, & sent round -

S. C. E.

New Haven. Jan. 5. 1866

My dear Watson.

Am glad of your safe return. Wish you a happy New Year.

I send Dr. Gray's original list of names of Garber's plants, as he directed.

I have a package of Trinidad Ferns (Tendlers) for Dr. L. Cosson, Paris, which the Dr. said you would forward with plants from E. L. Greene, &c. Shall I send it now?

Also. Mr. Mitten is to

Eaton

name & distribute Tuckerman's Trinidad Musci & Hepaticæ. I would be very glad to send them (four moderate packages, folio size) in your next envoy to Kew - May I do so?

I like N. of California, vol. II very much. The Mosses you have worked up beautifully, and though I recognize the source of much of your inspiration (as you acknowledge on p. 354) I think you have been very judicious & skilful in selection & condensation, & in adding new matter also.

We are all well - the children have just begun school again.

Yours very truly

D. C. Eaton.

New Haven. March 9. 1881

My dear Watson.

Prof. Goodale asked me to write a notice of Botany of California Vol II. for the Amer. Journal.

I did so promptly, & here is Prof. Dana's note about it. You will see the notice in due time.

I did not refer to the matter in my notice, but I wish Prof. Whitney had chosen a Californian Cereus or Echinocactus for the figure on the cover of Vol. I. instead of the Rio Grande C. dubius. Yours faithfully

D. C. Eaton.

Office of The American Journal of Science and Arts,

JAMES D. & E. S DANA, PROPRIETORS.

New Haven, Ct., March 7 1881

Dear Prof. Eaton:

I have received your notice for the Journal, and thank you much for it. It has already gone into the printer's hands, to appear in our April no. It is an excellent notice

Yours very truly

James D. Dana

New Haven. April 23. 1881

My dear Watson.

Thanks -

The Sassafras has no chaff on the receptacle, as S. grandiflora is said to have, & the description of the latter does not fit the involucral scales very well, nor the leaves as well as it ought to do. So I shall call Howell's plant new. & name it S. Americana, as it is so far the only peculiar American species -

Yours very Truly

D. C. Eaton.

New Haven.

May 30. 1881

My dear Watson.

Thanks for name of Poinciana regia. I can find no description of it;— only a reference to Reichenbach's figure, ub. I have not.

If you say so I will take your set of Palmer's fems. & mine, & from both make out a 3d set for Davenport.

Can you send me the Herbm specimens of

Saussurea alpina, &
related forms. Maximowicz's
species (S. grandifolia) included.
Cusick has sent me a
specimen of his plant, & it
seems to be mine, only
that the leaves are less
deeply toothed, and
I would like to compare.

Yours very truly
Daniel C. Eaton.

Sent May 31
Rec'd Oct. 4 /81

New Haven Nov. 23. 1881

Dear Dr. Gray.

The sight of your well-known hand is my first news of your return.

I am very glad you are well, and hope Mrs Gray soon will be. My little flock are pretty well. George is a little out of sorts with a feverish cold.

The main's little fern must be what you name it. Moore has figured a rather larger, but otherwise similar, plant as var. crispum.

The latest fern-news is
the finding in eastern
Lower Canada last summer
by our Prof O.D. Allen of two
California & Idaho ferns.

Pellæa densa. Hook. & my
Asplid. aculeatum, var. scopulinum.

—

Dr. T. Kirk, now established
as Professor in Canterbury College,
province of Canterbury, N. Zealand
is to exchange ferns, mosses,
hepatics & algæ with me,
just what I wanted.

Ever truly yours

Daniel C. Eaton.

Daniel C. Eaton,

NEW HAVEN, CONNECTICUT.

Nov. 30. 1881

My dear Watson.

The Cerros Island Lotus Arena is same as Miss Barbank's (Burbeck's rather) plant from S. Diego Co. & as Parry's from the Colorado desert. 1876. I call it a form of N. candida. Baker thought it a good & undescribed species, which it may prove to be.

What is this Draba? I can make it nothing but D. alpina var. glacialis, but it don't look like your specimens from 40th parallel coll. Viticaria alpina

Yours very truly

D C Eaton

New Haven. Dec. 29. 1881

Dear Dr. Gray.

Very many thanks for the kind invitation which you and Mrs. Gray have sent us. We can not well leave home until January has closed, but if any part of February would suit your convenience we shall be charmed to visit you for a few days.

And I shall be glad to do the "little professional job" you speak of.

We have much enjoyed Fadowis visit, though I am sorry he has had such unpleasant weather.

My wife unites in wishing you both all the happiness a New Year can bring.

Yours faithfully.

David C. Eaton.

New Haven. Aug 26.

Thursday. 2. P.M.

Dear Dr. Gray.

I got home Tuesday night, with my boys, leaving Wife & daughter at Holderness. I have distributed up to No. 58 of Gaber's things — (very nice plants too) There are 105 species all numbered for distribution, & a few packages of "mixed" things. I shall get through by Friday noon, & express your sets. (as called for by your letter of 21st inst.) Friday P.M. — They ought to reach you Saturday.

Gaber evidently collected for 16 sets. As a few

things over, I make
20 sets in all. the last
four very scanty. only 2 things
thus far fail of 16 good
specimens.
no. 9. Malvaceous - goes up to oct
11 only.
no. 48. Asclepiad up to oct 8 only.

Fruit is collected in many
instances as well as flowers.

Thanks, that both you
& Miss Gray are so good
as to miss us at this
time.

I will - unless you direct
otherwise - send sets as follows

Set. 1- Baron Eggers
2. Kew.
3. Dr. Gray
4. Eaton.
5. Kew.

I put odd forms, as lobed
leaves - bits of fruit - seeds
&c. mostly in sets 2 & 3.

Ever truly yours
Daniel C. Eaton.

New Haven. Conn.
Nov. 9. 1882

Dear Dr. Gray,

I am very sorry that you have been hurt: Farlow writes me that in stepping from a car you fell, and fractured a portion of the scabula. I am not enough of a surgeon to know just how serious this injury is; but, as you about the house, I permit the hope that the recovery may be as rapid as it can

ever be.

Yours faithfully

Daniel C. Eaton.

New Haven.

Nov. 9. 1883

Dear Dr. Gray.

I have received your last notes on Compositae, and hasten to thank you for the genus Eatonella, and for the very kind words in which you explain the name.

I am glad of the thistle also. I felt too timid about new species when I was working at Watson's Compositae, and perhaps was too mindful of the

da Scotch motto, to
"bother" so prickly a
thing as a thistle.

I am going after my
wife today - She writes
that she has bought a
bicycle for one of the
little boys, and a flute
for the other.

Henry takes very kindly
to birds, insects, frogs, &c.
+ George to practical
mechanical work. He has
made several turbine wheels
which work nicely, using
only old boards, sticks
+ pieces of tin, for his
materials!

Come & see them - the
boys I mean - & their
mother, sister, & your
attached friend,

Daniel C. Eaton.

New Haven Nov. 3, 1884

Dear Dr. Gray-

I know of Tendler's death only from the published notice of the memorandum in Dr. Engelmann's reliquia- Wish you would write to the U.S. Consul at Port of Spain - or other proper official- I suppose his half-brother may be still living in Trinidad-

I send you a 10 page autobiography of Tendler, which may be very useful- In fact it may appear best to print some considerable part of it.

I leave that to your judgment & to Asa Gray's.

We are pretty well here -

My wife has been overworked for a year past with the duties of Secretary of a Training-School for Nurses; but now is nearly through with her time of enlistment.

Barry was much run down for a year & more after having whooping-cough & mumps - combined - & does not now go to school - but I think she is slowly coming up again -

I can not see how any man who knows the difference between truth & falsehood, wriggling subterfuge & manly honesty, can vote for Blaine -

I shall not only not vote for him, but I shall vote for his principal opponent -

Yours faithfully

Daniel C. Eaton

New Haven, Conn
Oct. 17. 1887.

Dear Dr. Gray,

Watson writes me that you endeavored to communicate with me while in England, writing to the address given by my bankers, but failed to get a reply.

We were at our old room in London Sept. 12, 13, 14, & 15, and received several letters forwarded by the bankers, but most unfortunately did not get your note; nor know I yet seen it.

We had a pleasant trip home on the Umbria, save that among the 600 passengers

we had scarcely any acquaintances. I expect to be in Boston the 27th & 28th inst., and will go out to Cambridge and see you, probably the 28th.

I send you #410 of Palmer's coll. of 1886. Please look it, as it is of no use to me. It looks a little like a Solanum.

I found the numbers of this collection a good deal mixed up.

Yours very sincerely,

Daniel C. Eaton.

YALE UNIVERSITY
BOTANICAL DEPARTMENT

Jan. 11, 1888.

My dear Watson. I have at last got at your acrogens, have done up 9 pages to day – through Woodwardia. The genus Notholäena comes in. Allosorus becomes Cryptogramme. Onoclea is to swallow up Struthiopteris, & Fridmanes will come in. Shall the plates be changed to correspond? About 12 ferns will be added. I have put in Equisetum littorale as a species & made such little changes as seemed best. I can not venture to alter Botrychium much. will add any new ones I find in Underwood. Do you believe that Salvinia has occured in Missouri? Shall it go in?

I send a composite from the Yellowstone – it is out of flower, & I tried half a day to make it out – but had to give it up. The habit is so characteristic that perhaps you will remember seeing it before. Can it be Aster Shastensis? Coll. by R. S. Williams, Aug 24, 1888.

Yours very truly
Daniel C. Eaton

New Haven. June 2. 1888

My dear Watson.

I must trouble you with two plants from Montana sent me by my good correspondent Hon Robert S. Williams.

346 I took for a form of Phlox caespitosa - Mr. Williams says that Coulter calls it Phlox Richardsonii - It matches the figure in Hook. Fl. Bor. Am. better than it does Gray's description in Synoptical Flora - Which or which is it?

635 - Calochortus, I can not place anywhere, & suspect it to be new - Will you decide, & if new - will you kindly name it for Mr. Williams? I think he well deserves such a compliment.

Yours very sincerely

Daniel C. Eaton.

New Haven. June 6. 1888

My dear Watson.

I thank you for names of those plants. I had forgotten about the Phlox.

I am in tolerable health, & hope to be able to revise the ferns for the manual. It would take me about two weeks, & I should prefer to leave it till next autumn. The extended range will bring in a few more species.

Yours very truly
Daniel C. Eaton.

Thanks also for contributions XV.

YALE UNIVERSITY
BOTANICAL DEPARTMENT

New Haven. Nov. F 1887

My dear Watson.

I think I asked to keep for the library of the Gray Herbarium that copy of Eaton + Wright, as I have another one. I will send it back to you when I get a chance.

Brewer is here — has not been away, + I do not know why he does not respond.

Please send me two or three proof-sheets of the new manual, when you can, that I may be able to do the ferns in similar style as to capitals, italics — method — space, &c. Do you call the highest class of Cryptogams Acrogens, or Pteridophytes, or Acrogens — Subclass I — or what!

Shall I take Equisetæ + Lycopodiaceæ, or ferns only? When will you want the MS?

Yours faithfully,
D. C. Eaton.

YALE UNIVERSITY
BOTANICAL DEPARTMENT

New Haven. Dec. 4. 1888

My dear Watson.

Thanks for naming the Astragalus. I send you one more - the last this year. I think it comes near to Astr. multiflorus & A Bourgovii, but can not place it with either of them. Will you look at it? & please keep it - as I have no more.

Yours very Truly.

D. C. Eaton.

New Haven. Jan. 14. 1889

My dear Watson.

Thanks for naming the Erigeron. Canby's description is better than Gray's - but I do not see but what the two plants are one species.

I am obliged to trouble you with more things.

745 is an Astragalus from Sand Coulee, Montana. May 29. 1888 coll. by R. S. Williams - I had thought it A. Hallii, but now Mr. W. sends me one pod, which is curved, & deeply sulcate on the dorsal side - with a Y shaped intrusion - but not two celled. I can not place it at all.

5 - from Yellowstone Park - Mr. W. called A. Kentrophyta - To me it looks more like A. tegetarius - One pod had 4 seeds. Which is it?

809. looks like Pedicularis scopulorum but the upper lip is too slenderly rostrate -

3. from Yellowstone to [illegible]
Aug. 5. '83

Aplopappus macronema – but the heads are too small, the style-branches too short – & leaves too long & narrow. I can't find any place for it in either Aplopappus or Bigelovia – it seems to come nearer to Big. Parryi than anything else.

Please keep these specimens.

M. S. is done into Oreoclea – I hope to finish it this week.

Yours faithfully

D. C. Eaton

New Haven. Jun 19, 1880

Saturday 11.40 P. M.

My dear Watson.

Here is the MS. I hope I have not made it too long. Please arrange capitals, italics, punctuation, &c to suit yourself. I should be glad to keep in the note on the gemmæ of Lycopodium Lilago. because those New Yorkers have made such a bull a bellow over their meres' nest.

I wish I could do Astragalus. but just now I have too many irons in the fire. That cussed dictionary takes all the time I have to spare. & I am now only on the initial S.

Yours faithfully,

D. C. Eaton.

YALE UNIVERSITY
BOTANICAL DEPARTMENT

Nov. 1. 1889

My dear Watson.

In preparing Equisetum for the manual I entirely forgot a note I made in Flora of California on Equisetum Telmateia. The note wrongly refers to Bot. Mex. Boundy – instead of. Pacif. R.R. Survey Reports, p. 159. the Vol. may be IV or V. I can't tell which But the gist of it is that probably Eq. Telmateia has never been found within the limits of the manual. The local floras + lists of Buffalo, Michigan &c do not give it, + the Minnesota list only thinks it may be somewhere up beyond Duluth. What can now be done about it. I suppose it is not to late to put in a ? after "Lakes". Or could the whole account be cut out. Or is it too late to do anything at all?

Yours faithfully
D. C. Eaton.

New Haven Nov. 6. 1884

My dear Watson.

I have padded out the generic description of Equisetum about four lines, possibly five - If one line more is needed here - add a few words to account of the Prothallus. taking them from Sach's - Engl. version p. 863. e.g. "Prothallus [or prothallia?] green, formed upon the ground, usually dioecious, the female ones much the largest and often variously lobed".

I have also put in enough words more to carry the heading of each description of Eq. arvense onto the next line - & this will be enough -

But the figures must be fixed to all the species will have to be changed - 2. 3. 4. 5. 6 &c to 1. 2. 3 4. 5. &c.

I am very sorry to give you all this trouble. I don't believe you will need the addition to acct. of prothallus -

Yours very truly

Daniel C. Eaton

YALE UNIVERSITY
BOTANICAL DEPARTMENT

Feb. 3. 1890

My dear Watson.

Manual came Saturday. I am very much pleased with it, and am especially delighted with the significant silence in respect to such names as Hickoria, Unifolia and Magnolia fœtida.

The mentioning introduced plants without giving them numbers is a good idea. I wish there could have been a condensed index of specific names & synonyms appended to Carex, & perhaps to Aster & Solidago. The deficiency of index to Quercus in DeCandolle's Prodromus is a serious trouble in the use of his book. & I fear it will be so in Carex here.

I think you have fully & fairly carried out Dr Gray's "known & expressed views", & have produced a work of great merit & usefulness.

Should I find typographical errors I will note them for you. Today I notice only a defective E in Limosella (page 384).

Yours very truly

Daniel C. Eaton

New Haven. Feb. 11. 1890

My dear Watson.

I wrote to Mr Canby about that Heuchera & he gave his consent to my publishing it as Heuchera Williamsii – & I have sent copy to Botan. Gazette –

I have just finished writing a notice of the new Manual for the Amer. Jour. Science – & Prof. Dana has agreed to give it

a place in the No. for March. I have tried to do it fairly, but had to point out that you rejected the terms "flowering-glume" & "palet" in Flora of California, & accepted them now - Still, as I tried to say it kindly, I don't think you will be vexed with me.

I am chuckling over the way the Manual will be received in New York & San Francisco.

Sargent's confession of regret at having to write *Magnolia fœtida* instead of *M. grandiflora* is truly pathetic.

Yours very truly

Daniel C. Eaton

New Haven. Feb. 13. 1890

My dear Watson.

Thanks for reminding me that it was Shuber who wrote the grasser for H. Cal.

I will either cancel that half-page of my M S. or put it into a different shape. This use of the new terms for upper & lower palet was the only thing I had ventured to criticise, & my criticism was not at all severe - I had made a point about the senior editor having apparently

" yielded gracefully to the junior in this thing; while in retaining the Gymnosperms in their old place the yielding, if there was any, has been the other way".

I will see that it is eliminated.

Yours very sincerely

Daniel C Eaton

YALE UNIVERSITY
BOTANICAL DEPARTMENT

New Haven. Feb. 21. 1890

My dear Watson.

$3.05 is a low price for good herbarium paper, & I am content to take six reams at that price. I add very little to my herbarium now, or I would ask for more.

I enclose a proof of my notice of the manual, & hope it will not disappoint you. I saw Dr. Britton the other day. He said that he would not review the manual himself — that Dr. Porter would write the notice for the Bulletin. He said that the ranges of many species were not given wide enough. I did not ask him what these species were.

Yours very truly

Daniel C. Eaton

YALE UNIVERSITY
BOTANICAL DEPARTMENT

Feb. 28. 1890

My dear Watson.

Box of paper came today. I enclose my check for $18 36/100. If they do not want it at your bank send it back, & I will get you a regular draft. If there is any charge for the box please let me know.

Yours very truly

Daniel C. Eaton

YALE UNIVERSITY
BOTANICAL DEPARTMENT

New Haven Conn.
March 14. 1890

My dear Watson -

I have received
Buxbaumia indusiata from
Washington Territory and from
Idaho. It occurs to me that
possibly the specimens from
Lyall referred to B. aphylla
in Flora of California might
be B. indusiata. Can you
let me see them?

In another month I hope
to be using the new Manual
with my class.

Yours very truly

Daniel C. Eaton

YALE UNIVERSITY
BOTANICAL DEPARTMENT

March 17. 1890

My dear Eaton -

Referring to Porter's list of ranges defective in Maryland. I have to say that.

Lycopodium Selago - not in my herbarium from Penn. - tho' I have it from N. Car.

Botrychium Simplex. Penn. comes within range as given - being between N.Y. (Long Island!) & Minn. I have seen no specimens from Penn.

Pellaea gracilis - Point justly taken. I have specimens from Sullivan Co. coll. by C.E. Smith.

Lygodium palmatum - Penn. is within range as given.

Equisetum littorale - Point justly taken I have it from Susquehanna river coll. by Dr. Porter - the real thing.

Eq. variegatum - I have seen none from Penn - but Erie Co is fairly within given range - being a shore between Niagara & Minnesota.

Yours very truly

D. C. Eaton.

YALE UNIVERSITY
BOTANICAL DEPARTMENT

March 19. 1890

My dear Watson.

Thanks for sending the Buxbaumia - all B. aphylla. I will return the specimens in a day or two.

I think the quarrel with Porter goes back to 1874 when I charged him with copying from your botany of 40th parallel without giving you credit.

(Silliman's Journal, Vol VII. May. 1874)

It is impossible to give briefly a range that will suit everybody, & I think I could name several Connecticut plants that your ranges do not provide for — and a few that you credit us with, which I have never found here — But I am not therefore going to

abuse you

Yours very truly

Daniel C. Eaton

YALE UNIVERSITY
BOTANICAL DEPARTMENT

New Haven, March 30, 1890

My dear Watson.

I can not find the Brabaumias at all, and think the envelop must have fallen into the waste-basket, & so has been burned up. I am very sorry for it, and wish you had kept all that I sent you.

I have now been over Prof. Underwood's part of the manual, and must say that I do not like his taking up S. F. Gray's genera as amended by Carrington. I think old Dumortier was quite right in saying that

1. S. F. G.'s work was utterly unknown to botanists - & so was not truly published.
2. S. F. Gray's generic names, such

Herbertus, Bazzanius, Kantius, Mylius, Nardius, Pallavicinius, are, as Dr Mortier says "names of men, not of plants". Carrington virtually admitted this when he transformed them into the shapes adopted by Underwood. After other Hepaticologists had proposed good names, such as Madotheca, Calypogeia, etc. I do not think Underwood was guided by "Dr. Gray's known & expressed views" but rather by such as would be acceptable to Dr. Britton, Dr. Porter & Prof. Sargent. One of my students is now preparing his thesis on Hepaticae, & if he does well with it, I mean to have it printed by & by, & in it the views I have above advanced will be explained at greater length. Yours very truly

Daniel C. Eaton

YALE UNIVERSITY
BOTANICAL DEPARTMENT

New Haven. June 4. 1890

My dear Watson.

That heading is not very clear. I do not see how the whole story could go into one line. The leaves are in four rows, those of the lateral rows larger than those of the two upper rows. The present heading comes down with gradual alterations from Gray's 2d Ed., where he has this; "** Leaves of 2 sorts, the shorter above and below, resembling stipules, the larger lateral, 2-ranked"

We might say

** Leaves 4-ranked, the lateral ones larger, the upper ones smaller, but this would take more than one line

or ** Leaves dimorphous, four ranked, the lateral spreading, the upper ones smaller and ascending.

The word "below", as the heading now stands, is plainly erroneous. You can probably devise a short phrase better than I can. Yours very truly

D. C. Eaton.

South Lyme. Conn.
Aug 5. 1890

My dear Watson.

Your Lycopodium has reached me here, where I have no books. To the best of my recollection Gray was wrong in his use of the name sabinaefolium, which, I think, belongs to something else. I believe I substituted A. Braun's name of chamaecyparissus, or some such word for the form you send me, which does occur at New Haven, as the specimen you refer to rightly shows.

But please cf. Baker on Fern-Allies. I will look the matter up when I go home, as here I can only trust to somewhat uncertain recollections

Yours very Truly

Daniel C. Eaton

New Haven. Aug. 14. 1890

My dear Watson

Dr. T. Kirk of Wellington, New Zealand writes & asks me "Is it possible to obtain a second hand copy of the "Botany of the Wilkes Expedition" at a reasonable price?" + + I am preparing a new Flora of N. Z. and should be glad of an opportunity to consult the work named if it might be" — I suppose he refers to Gray's volume on the Phaenogamia - Can you help me to a reply to his question? He has sent me two copies of his "Forest Flora of New Zealand", a

folio of 345 pages & 142 plates. I would be glad to exchange one of these copies for Gray's Phaenogamia of the Wilkes Exped - & send him the latter -

Yours very truly

Daniel C. Eaton

New Haven. Sept. 20, 1890

My dear Watson

I have received from Trelease Engelmann's copy of Phaenogamia of Wilkes Ex., sent at your request. I am very glad indeed to get it, & have repacked it, & am now waiting for Adams Ex. Co. to find out how it can be sent to New Zealand. I sent you today a copy of Dr. Kirk's Forest Flora of New Zealand, but I do not think it is an adequate exchange for the Wilkes Exp. botany, and I will be glad of a chance to add something to it.

I have received sample pages of Sargent's Silva of North America - I can not afford to take it - What a pity it is that he is so bewitched with the priority craze as to seriously write "Magnolia foetida"!

This crankiness will do much to destroy the value of his work.

Yours very truly, & with many thanks.

Daniel C. Eaton.

New Haven, Conn.
Sept. 26, 1890

My dear Watson -

I will propose to Dr. Kirk to send a copy of his book to Prof. Sodease, & have no doubt he will be very glad to do so. Have you a copy of the old "Eaton & Wright" Fl. of N. America. If not I will send you one, & still be in your debt.

Yours very truly
Daniel C. Eaton

New Haven. Nov. 16. 1890.

Dear Mrs Gray,

Yesterday Mr Brewer brought me the copy of Knell's engraving which you most kindly sent me.

I thank you for this gift, and I am very much pleased with it, both as a work of art, and as an excellent likeness of my dear master in science.

Nothing that I have of the Doctor can begin to compare with it, and I

am very thankful for it.

I think it will interest you to know that my dear boy is now a good two inches taller than his father! He is a freshman in College, and his instructors tell me he is doing well there. My daughter is studying too, and comes to me with her books when she is puzzled. My wife resigned from the Training-school board, after serving eleven years, and I am very glad that she has a rest from the cares that troubled her so much.

I hope your own health is good, and that the days bring pleasant things and thoughts to you.

My wife sends you her love, and I am

Yours very sincerely,

Daniel C. Eaton.

New Haven, Conn -
Nov. 17. 1890

My dear Sir,

I have received your letter of the 15th, with a package of ferns.

I should name them as follows.

Nos. 1. 3. 6. are typical Aspidium spinulosum.

No. 5. is nearly the same, but has a broader outline, as if verging towards var. dilatatum

Nos. 4. 7. are var. intermedium of the same species.

No. 8 is Asplenium Filix-foemina.

No. 13. is Lycopodium complanatum.

No. 9 is var. Chamaecyparissus of Lycop. complanatum.

No. 10 is a more robust & less branched form of no. 9.

No. 11. is Lycopodium clavatum, typical.

No. 12 is nearly midway between L. clavatum & L. annotinum var. pungens.

It has the hair-pointed leaves of L. dasystum, and one spike has a nearly naked peduncle — but the other spikes are nearly sessile, & solitary - so I should put it with L. annotinum, but note the divergence from the usual type. I have not seen this form before.

No. 2. Equisetum arvense, var. campestre.

I had to cut this in two, in order to get stem sections for microscopic examination. — I return the specimen.

E. littorale has a different section from this specimen.

Yours very truly

Daniel C. Eaton

M. L. Fernald. Esq.
Orono, Maine.

YALE UNIVERSITY
BOTANICAL DEPARTMENT

New Haven Jan 27. 1891

My dear Watson.

I am sorry, but there is no one here for me to recommend to you for the work you indicate.

Since Mr. Setchell went away I have had but one man (Mr A. W. Evans) who has done anything, and he is now studying medecine. He works now & then an afternoon at Hepaticae, but I think he means to be a physician.

Yours very truly

Daniel C. Eaton

New Haven. Jan. 30, 1891

My dear Watson.

Torrey Bulletin for Jan. has notes on Salvinia natans. Referring to Bot. Gaz. XI. 48 I see it said that plants were sent to Dr Gray by Demetrio in 1886. Can you find them in the Herbarium & let me see them? I have written to Prof. Conway Mc Millan asking for specimens, & saying why the notice in Manual ed. VI. was such as it was. Of course we can not take any evidence but that of seeing the specimens. If you had them all along both you & I ought to have known it.

Yours faithfully

D. C. Eaton

UNITED STATES

POSTAL CARD.

ONE CENT

NEW HAV
JAN 30
11 A
CT

NOTHING BUT THE ADDRESS TO BE ON THIS SIDE.

Prof. Sereno Watson
Botanic Garden
Cambridge
Mass.

New Haven. April 6. 1891

Dear Madam,

The different varieties of Asplenium filix-femina run into each other so gradually that it is hard to classify them, and there is very little profit in the task.

Your "rigid fern" is what I called var. angustum. The red-stemmed plant I should call a smallish example of the type of the species.

The red stem is by no means rare, & it was a red-stemmed specimen which was figured in my book.

This reddish color is seen now & then in many ferns. Osmunda regalis often has it when young. So do several Adiantas. Pellaea andromedaefolia has a form permanently red all over.

Yours very respectfully
Daniel C. Eaton

Mrs. C. D. Richards.

New Haven. April 27. 1891

My dear Watson.

Sorry for the delay.

Your St. Helena fern I can not match. There is no sign of fruit, & hence the genus is doubtful; but I should guess Gymnogramme. The fibrillose rachis is peculiar, & might suggest a good specific name.

The Ascension Asplenium must be what Berry called A. dentatum, but it is not A. dentatum, which by real affinity is rather one of § Diplaziums. But is not

this the same as Baker's
A. vagans? of which I have
neither scrap nor figure.

I should have called it a
form of A. fragile, which
being a Hawaiian form (?) is
found along the Andes. & it
might have traveled to
Ascension along the peaks
of the lost Atlantis!

The Polypodium? I take
to be Nerium Oleander. Though
I have none to compare. Yet
the description in DeCand. Prodr.
VIII. p. 420 & the little bits of
the lower surface is excellent.

Thanks for the specimens—

Yours faithfully

Daniel C. Eaton.

New Haven. May 15, 1891.

My dear Watson,

I thank you for sending me those Philippine Island ferns, etc. I have already some ferns from those Islands, from Cuming's collection, & so shall be able to save a part of these for some one else.

I shall be very glad when Mr. Setchell comes here, for one reason — among many —, that then I hope the College will take my herbarium off my hands, and provide some care for it. Yours very truly

Daniel C. Eaton

YALE UNIVERSITY
BOTANICAL DEPARTMENT

New Haven. June 4. 1891

My dear Watson -

The Llavea of Lagasca you will find vindicated in Hooker. Species Filicum. II. p. 125. I think fem-men are now generally content to abide by Hooker's decision, & w would say that the genus is good, & its name is Llavea.

Yours very truly

Daniel C. Eaton

15 packages

6½° × 20' × 13½'

New Haven June 19. 1891

My dear Watson.

I had no idea there were so many ferns in the Kew duplicates. I should like to look them over & select some for my collection; as there must be a good many which I have not. How big a box or bale is it?

I could look them over next October – hardly sooner, as I shall not be home much till then. Since you ask me I would propose sending either the whole lot as it is, or after I have selected from

it to John Donnell Smith,
who is a careful student
of ferns (among other things),
& means to give his herbarium
to the University at Baltimore.

I have some hope that
the Sheffield School will
before very long take my
herbarium off my hands,
& make some provision for
its care & increase -

Yours very truly
Daniel C. Eaton

New Haven June 24. 1891

My dear Watson -

Very well - So you please keep the Ferns till October, & then send them here, & after I have made my selections I will forward the rest to John Donnell Smith, or to whomsoever you may direct.

I go to N.Y. today to supervise Entrance Examinations, & soon afterwards to South Lyme for the summer.

Yours very truly,

Daniel C. Eaton.

South Lyme, Conn.
July 24. 1891

My dear Watson.

Your little fern has pursued me to this place.

If you will compare it with your herbarium specimens of Cystopteris fragilis, I think you will see the identity. The fleshy & persistent bases of the stalks, making a sort of nodose rhizoma, is characteristic — I can even find an indusium near the apex of the youngest frond!

But there is a new fern- that is new to the U.S-. Nephrolepis tuberosa has just been sent to me from Polk Co. North Carolina- by Mr. E.S. Wheeler- I have written to him for a full account of the station &c- so as to know if the plant is truly native.

I expect to stay here through the vacation.

Yours faithfully

Daniel C. Eaton

New Haven. October 2. 1891

My dear Watson.

All ready, thank you. Send the ferns as soon as you please.

Now that Setchell is here there is more hope that the Sheffield School or the University will before long find some way of accepting & caring for my herbarium.

Yours very truly

Daniel C. Eaton